

APPARATUS FOR EFFICIENT LOADING AND STORING OF VECTORS", filed by the same inventors on the same date as the instant application. Both of these related cases are hereby incorporated by reference in their entirety.

• The paragraph beginning at page 12, line 13:

The microprocessor 10 is connected, in a known manner, to an off-chip (external) memory 12 or main memory via an address bus 14 and data bus 16. The external memory 12 contains data and/or instructions, such as 3D graphics instructions, needed by the microprocessor 10 in order to perform desired functions. It is noted that the microprocessor 10 and external memory 12 may be implemented in a larger overall information processing system (not shown). The microprocessor includes a control unit 18, fixed point units 20a and 20b, general purpose registers (GPRs) 22, a load and store unit 24, floating point unit 28, paired single unit (vector processing unit) 30 and floating point registers 26, all of which generally interconnect and operate in a known manner. In addition, the microprocessor 10 includes a level one instruction cache 32, a level one data cache 34, a level two cache 36 with associated tags 38, and bus interface unit (BIU) 40, all of which may generally operate in a conventional manner. However, the data cache 34 and the direct memory access unit may have special operations as disclosed in copending U.S. patent application Serial No. 09/545,184 entitled "Method and Apparatus for Software Management of On-Chip Cache" and filed concurrently herewith by the same inventors and assignees. For additional information on cache instructions for the PowerPC see *Zen and the Art of Cache Maintenance, Byte Magazine, March 1997.*